PATENT PENDING

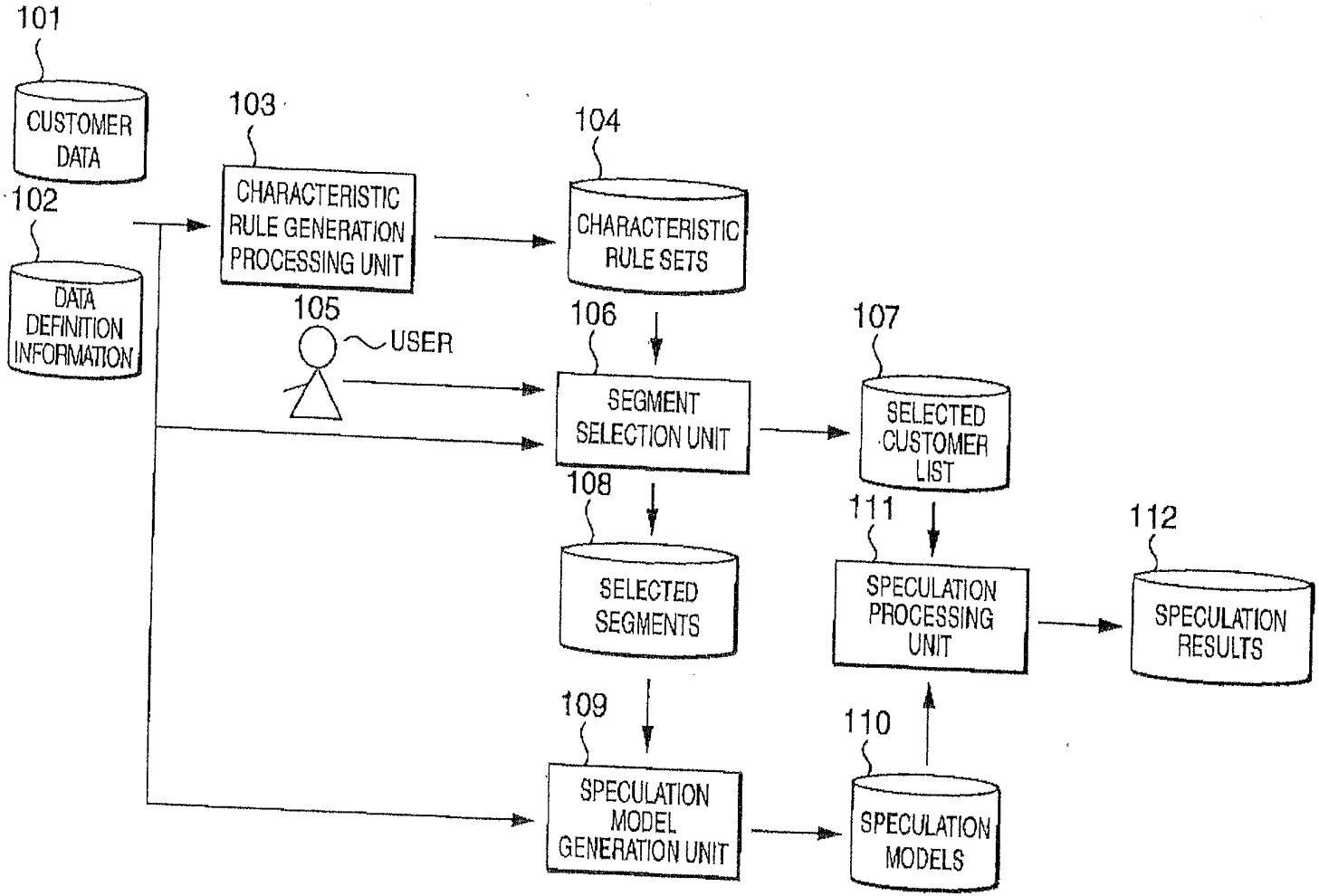


FIG.1

MONTH	CUSTOMER ID	GENDER	AGE	...	PROFIT AMOUNT	CANCELLED CUSTOMERS
3	00001	M	27	...	32,000	0
	00002	F	22	...	35,000	1
	00003	M	31	...	27,000	0
	...	...	...	...	...	...
4	00001	M	27	...	34,000	
	00002	F	22	...	38,000	
	00003	M	31	...	28,000	
	...	...	...	...	...	...
5	00001	M	27	...	36,000	
	00003	M	31	...	29,000	
	...	...	...	...	...	...

FIG.2

[USED DATA]
MARCH

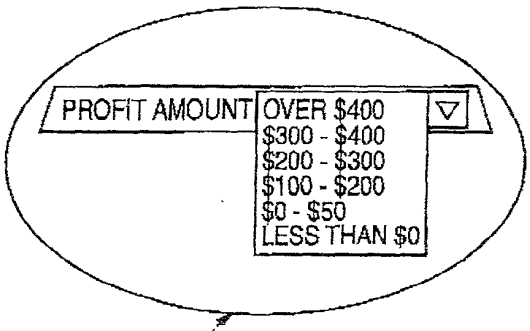
[RULE GENERATION ITEMS]
CONDITION ITEMS :
GENDER, AGE, PROFIT AMOUNT,
PRODUCT MODEL, RESIDENCE
CONCLUSION ITEMS : CANCELLATION STATUS
[LAYER]
GENDER :
MALE
FEMALE

AGE :
UNDER 20 : AGE < 20
20~24 : 19 <AGE < 25
25~29 : 24 <AGE < 30
30~34 : 29 <AGE < 35
OVER 35 : 34 <AGE

FIG.3

NO.	RULE	RULE/CONDITION	PRECISION
1	IF AGE = 20~24 & GENDER = F THEN LICENSE = CANCEL	54/200	27%
2	IF PRODUCT MODEL = xyz & RETAIL STORE = A THEN LICENSE = CANCEL	42/210	20%
:	:	:	:

FIG.4



ANALYSIS ITEM [CANCELLATION %] PROFIT AMOUNT [ALL] RETAIL STORE [ALL]

DRILL DOWN

AGE \ GENDER	MALE	FEMALE	UNKNOWN
UNDER 19	7	13	3
20~24	11	27	4
25~34	9	8	2
35~44	6	5	1
OVER 45	2	1	0

FIG.5

ANALYSIS ITEM [CANCELLATION %] PROFIT AMOUNT [$300 - $400] RETAIL STORE [ALL]

AGE \ GENDER	MALE	FEMALE	UNKNOWN
UNDER 19	7	15	4
20~24	16	24	6
25~34	9	9	
35~44	8	3	
OVER 45	3	2	

SELECT COSTOMER LIST
GENERATE SPECULATION MODEL
SPECULATE

FIG.6

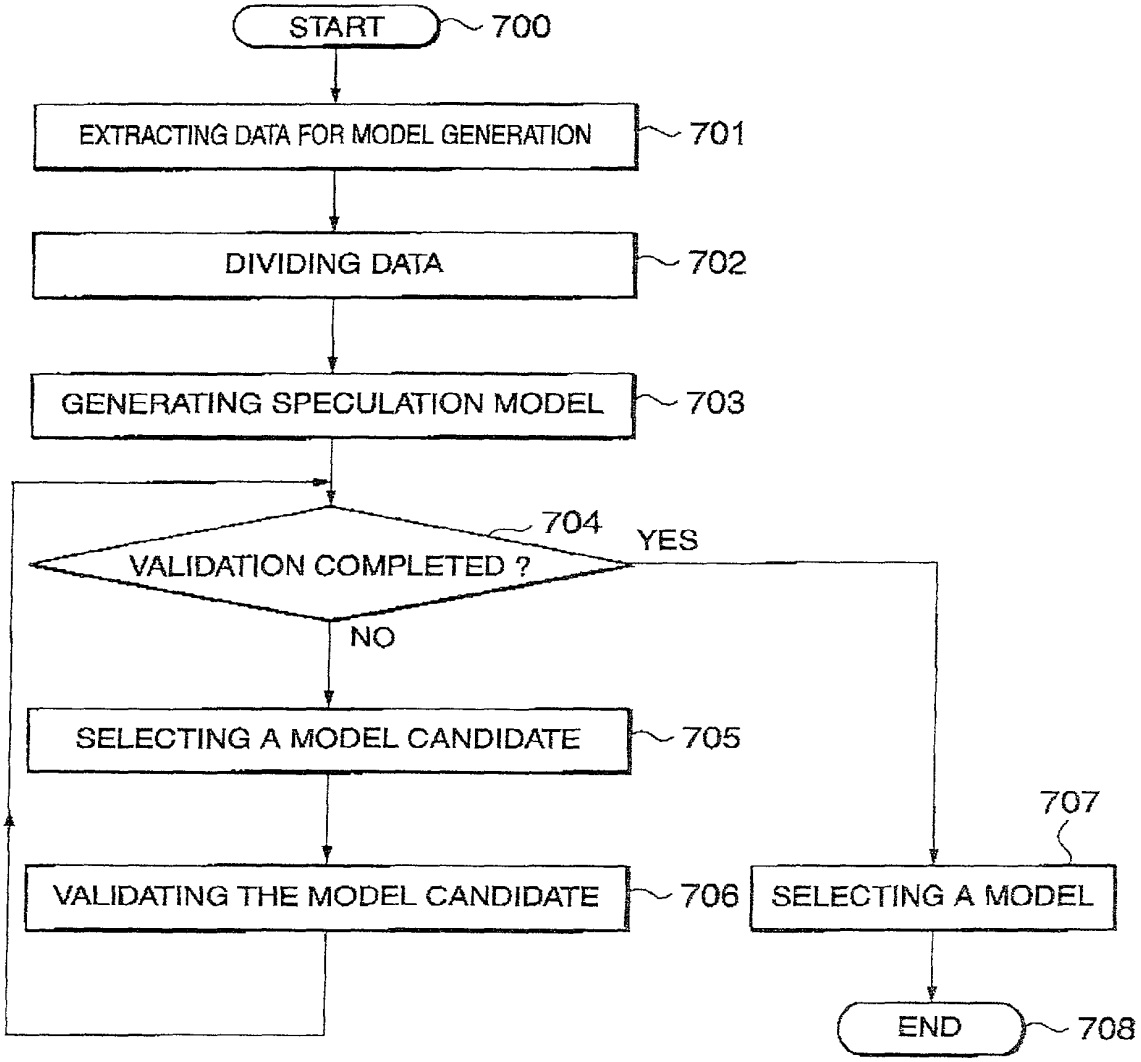

START
700
EXTRACTING DATA FOR MODEL GENERATION
701
DIVIDING DATA
702
GENERATING SPECULATION MODEL
703
704
VALIDATION COMPLETED ?
YES
NO
SELECTING A MODEL CANDIDATE
705
VALIDATING THE MODEL CANDIDATE
706
707
SELECTING A MODEL
END
708

FIG.7

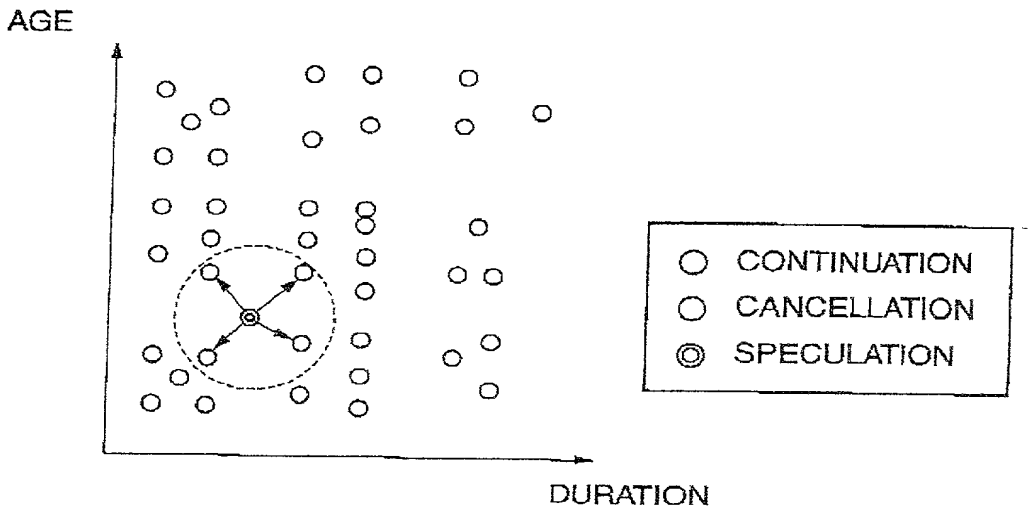


FIG.8

[DATA]
MARCH

[RULE GENERATION ITEMS]
CONDITION ITEMS : OCCUPATION, PROFIT AMOUNT, CANCELLATION, RESIDENCE
CONCLUSION ITEMS :

[SEGMENT CONDITIONS]

AGE = 20~24 & GENDER = FEMALE
& PROFIT AMOUNT =$300 - $400

FIG.9

CUSTOMER ID	CANCELLED CUSTOMER	SELECTION CONDITIONS	AGE	PROFIT AMOUNT	. . .
00036	1.0	AGE = 20~24 & GENDER =FEMALE & PROFIT AMOUNT =$300 - $400	21	$320	. . .
00302	1.0	AGE = 20~24 & GENDER =FEMALE & PROFIT AMOUNT =$300 - $400	22	$350	. . .
00421	0.98	AGE = 20~24 & GENDER =FEMALE & PROFIT AMOUNT =$300 - $400	20	$330	. . .
⋮			⋮		

FIG.10

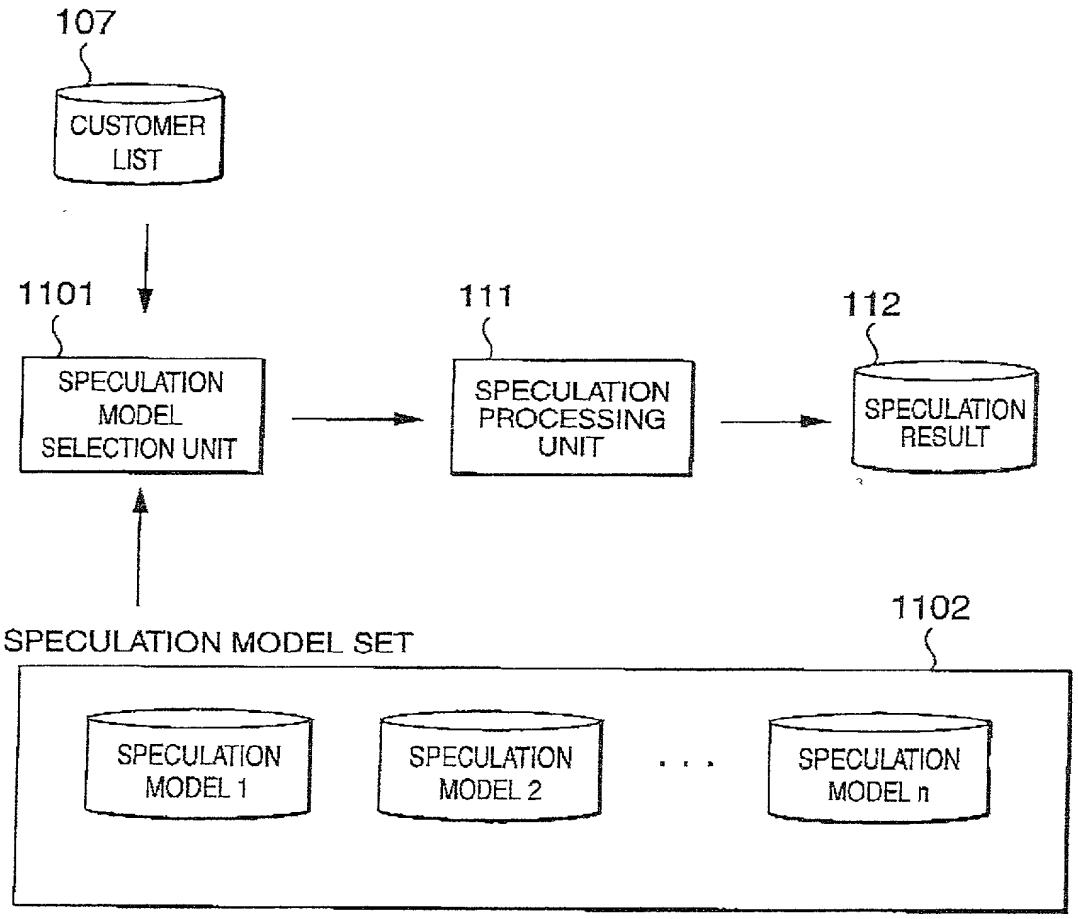

107
CUSTOMER LIST
1101
SPECULATION MODEL SELECTION UNIT
111
SPECULATION PROCESSING UNIT
112
SPECULATION RESULT
SPECULATION MODEL SET
1102
SPECULATION MODEL 1
SPECULATION MODEL 2
. . .
SPECULATION MODEL n

FIG.11

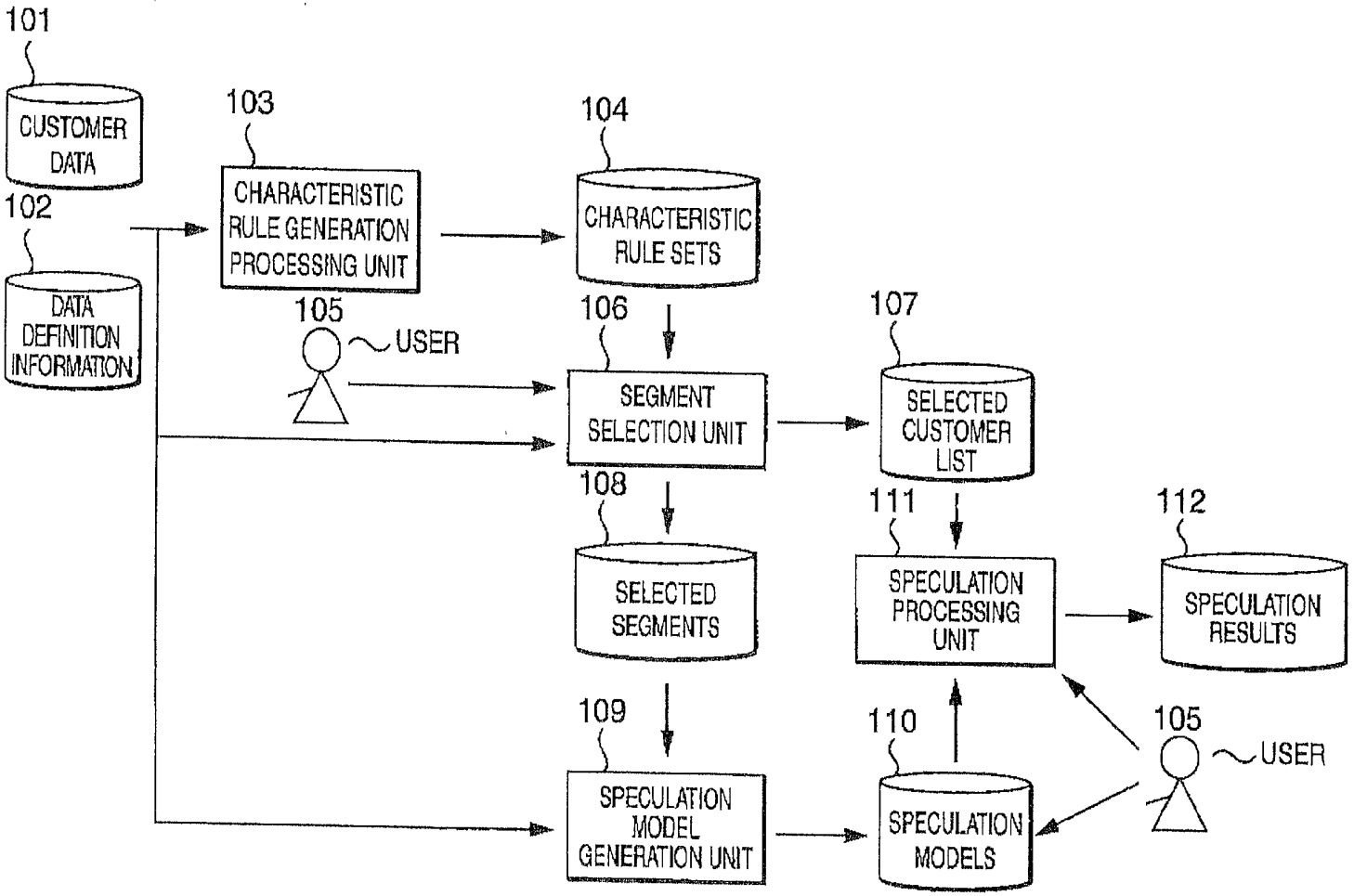

101
CUSTOMER DATA
102
DATA DEFINITION INFORMATION
103
CHARACTERISTIC RULE GENERATION PROCESSING UNIT
104
CHARACTERISTIC RULE SETS
105
USER
106
SEGMENT SELECTION UNIT
107
SELECTED CUSTOMER LIST
108
SELECTED SEGMENTS
109
SPECULATION MODEL GENERATION UNIT
110
SPECULATION MODELS
111
SPECULATION PROCESSING UNIT
112
SPECULATION RESULTS
105
USER

FIG.12